REVERSE-RENDERING METHOD FOR DIGITAL MODELING

ABSTRACT OF THE DISCLOSURE

5   A method for automatically or semi-automatically constructing a digital 3D model of a scene from photographic data and photogrammetry data includes defining an initial rough model as a solution estimate. A reverse rendering step includes a second-order solution method that employs automatic differentiation techniques to accurately compute derivatives of an error function. In an embodiment of the method, at least one

10   camera is placed within the scene being constructed, and photographic data from this camera is used in the solution process.